



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 12, 2018

Mr. Edward Bockrath  
Product Registration Manager  
FMC Corporation  
c/o FMC Stine Research Center  
P.O. Box 30  
Newark, Delaware 19714-0030

Subject: Notification per PRN 98-10 – Change primary brand name and registration transfer revision  
Product Name: Harmony Extra Herbicide  
EPA Registration Number: 279-9583  
Application Date: July 9, 2018  
Decision Number: 542628

Dear Mr. Bockrath:

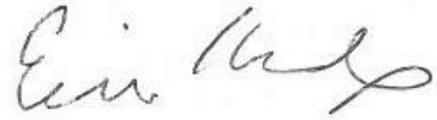
The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, you may contact BeWanda Alexander at (703)347-0313 or via email at [alexander.bewanda@epa.gov](mailto:alexander.bewanda@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is written in a cursive style with a large, stylized initial "E".

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Revised Branding Logo and Removed "DuPont™"

# HARMONY® EXTRA

HERBICIDE

Dry flowable

For Use on Wheat, Barley, Oat and Fallow

HIGHLIGHTED COPY

Active Ingredients

By Weight

<b>Thifensulfuron-methyl</b> Methyl 3-[[[(4-methoxy-6-methyl-1,3,5- triazin-2-yl) amino]carbonyl]amino] sulfonyl]-2-thiophenecarboxylate .....	.50%
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<b>Tribenuron-methyl</b> Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5- triazin-2-yl) methylamino]carbonyl] amino]sulfonyl]benzoate .....	25%
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<b>Inert Ingredients</b> .....	25%
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Changed "352-538" to "279-9583"

<b>TOTAL</b>	100%
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EPA Reg. No. 279-9583

Changed "441-3637" to "331-3148"

Replaced "DuPont" with "FMC" and removed "DuPont™" throughout the label when referencing HARMONY EXTRA

## KEEP OUT OF REACH OF CHILDREN CAUTION FIRST AID

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

## PERSONAL PROTECTIVE EQUIPMENT

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical- resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## ENGINEERING CONTROL STATEMENTS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170 Section 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Sold By



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

Added Company logo and address

## NOTIFICATION

279-9583

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/12/2018

## USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposing of equipment washwaters or wastes.

## PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls.

Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

Shoes plus socks.

HARMONY® EXTRA must be used only in accordance with recommendations on this label or in separately published **FMC** recommendations.

HARMONY® EXTRA is recommended for use on wheat, barley, oat, and fallow in most states, check with your state extension or Dept. of Agriculture before use, to be certain HARMONY® EXTRA is registered in your state.

**FMC** will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by

**FMC**.

## GENERAL INFORMATION

HARMONY® EXTRA herbicide is a dry flowable granule that is used for selective postemergence weed control in wheat (including durum), barley, oat and fallow. The best control is obtained when HARMONY® EXTRA is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

HARMONY® EXTRA is noncorrosive, nonflammable, nonvolatile, and does not freeze. HARMONY® EXTRA should be mixed in water and applied as a uniform broadcast spray.

## **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

HARMONY® EXTRA is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to 3 weeks after application to weeds (2 to 5 weeks for wild garlic), leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

HARMONY® EXTRA provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of HARMONY® EXTRA may be affected in crops stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, cultural practices, or variations in crop variety. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to HARMONY® EXTRA.

## **APPLICATION INFORMATION**

### **USE RATE**

Do not use less than 0.3 ounce HARMONY® EXTRA per acre.

#### ***Wheat (including Durum) and Barley***

Apply 0.3 to 0.6 oz HARMONY® EXTRA per acre to wheat (including durum) or barley. Two applications of HARMONY® EXTRA may be made provided the total amount applied does not exceed 1.0 oz per acre per crop season.

Use 0.3 to 0.4 oz HARMONY® EXTRA per acre for light infestation of the weeds listed under Weeds Controlled. Conditions at application should be optimum for effective treatment of these weeds.

Use 0.5 oz HARMONY® EXTRA per acre for heavy infestation of the weeds listed under Weeds Partially Controlled.

Use 0.6 oz HARMONY® EXTRA per acre for heavy infestation of the weeds listed under Weeds Partially Controlled when application timing and environmental conditions are marginal (refer to Environmental Conditions and Biological Activity for best performance).

#### ***Oat (Spring and Winter)***

Apply 0.3 to 0.4 ounce HARMONY® EXTRA per acre for control of the weeds listed in WEEDS CONTROLLED table. Do not make more than one application of HARMONY® EXTRA per crop season on oat.

#### ***Fallow***

Apply 0.3 to 0.6 oz HARMONY® EXTRA per acre to fallow. Two applications of HARMONY® EXTRA may be made provided the total amount applied does not exceed 1.0 oz per acre per crop season.

HARMONY® EXTRA should be applied in combination with other suitable registered fallow herbicides such as “Landmaster II”, “Fallow Master”, “Roundup” plus 2,4-D (ester formulations work best), “Roundup” plus “Banvel”/ “Banvel” SGF/ “Clarity”, 2,4-D, “Banvel”/“Banvel” SGF/ “Clarity”.

#### ***Pre-plant Burndown***

Apply 0.3 to 0.6 oz HARMONY® EXTRA per acre as a burndown treatment prior to, or shortly after planting (prior to emergence).

Sequential treatments of HARMONY® EXTRA may also be made provided the total amount of HARMONY® EXTRA applied during one fallow/pre plant cropland season does not exceed 1.0 ounce per acre; for example, 0.5 ounce in the fall followed by 0.5 ounce in the spring. Use 0.6 ounce per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under PARTIAL CONTROL, or when application timing and environmental conditions are marginal.

(See APPLICATION TIMING Section for restriction on planting intervals)

## **APPLICATION TIMING**

### ***Wheat (Including Durum), Barley and Winter Oat***

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

#### ***Spring Oat***

Make applications after the crop is in the 3 leaf stage, but before jointing.

Do not use on “Ogle”, “Porter” or “Premier” varieties as crop injury can occur.

#### ***Fallow***

HARMONY® EXTRA may be used as a fallow treatment, in the spring or fall when the majority of weeds have emerged and are actively growing.

#### ***Pre-plant Burndown***

Apply HARMONY® EXTRA as a burndown treatment to wheat (including durum), barley, and oat to control emerged weeds prior to, or shortly after planting (prior to emergence). Make applications when the majority of weeds have emerged and are actively growing.

Applications to sugarbeets, winter rape and canola can be made at least 60 days prior to planting. Applications to any other crop can be made at least 45 days prior to planting (crops such as corn, cotton, rice, grain sorghum or soybeans).

Since HARMONY® EXTRA has very little or no soil activity, it controls only those weeds that have germinated; therefore, apply HARMONY® EXTRA when all or most of the weeds have germinated. Annual broadleaf weeds should be past the cotyledon stage, actively growing, and less than 4” tall or wide. Wild garlic plants should be less than 12” tall with 2” to 4” of new growth. See Specific Weed Problems for more information.

Rainfall immediately after treatment can wash HARMONY® EXTRA off of weed foliage, resulting in reduced weed control. Several hours of dry weather are needed to allow HARMONY® EXTRA to be sufficiently absorbed by weed foliage.

## **CROP ROTATION**

Wheat, Barley, and Oat may be replanted anytime after the application of HARMONY® EXTRA.

Sugarbeets, Winter Rape, and Canola can be planted 60 days after the application of HARMONY® EXTRA. Any other crop may be planted 45 days after the application of HARMONY® EXTRA.

## WEEDS CONTROLLED

HARMONY® EXTRA effectively controls the following weeds when used according to label directions:

Annual knawel	Curly dock	Redroot pigweed
Annual sowthistle	False chamomile	Russian thistle *
Black mustard	Field chickweed	Scentless chamomile/ mayweed
Blue/Purple mustard	Field pennycress	Shepherd's-purse
Broadleaf dock	Filaree (redstem, Texas)	Slimleaf lambsquarters
Bur buttercup	Flixweed	Smallflower buttercup
Bushy wallflower/ Treacle mustard	Green smartweed	Smallseed falseflax
Clasping pepperweed	Henbit	Stinking chickweed
Coast fiddleneck	Kochia *	Stinking mayweed/dogfennel
Common buckwheat	Ladysthumb	Swinecress
Common chickweed	Lanceleaf sage *	Tansymustard
Common cocklebur *	London rocket	Tarweed fiddleneck
Common groundsel	Marshelder	Tumble/ Jim Hill mustard
Common lambsquarters	Mayweed chamomile	Volunteer lentils
Common radish	Miners lettuce	Volunteer peas
Common ragweed *	Narrowleaf lambsquarters	Volunteer sunflower
Common sunflower	Nightflowering catchfly	Wild buckwheat*
Corn chamomile	Pennsylvania smartweed	Wild chamomile
Corn gromwell*	Pineappleweed	Wild garlic*
Corn spurry	Prickly lettuce *	Wild mustard
Cowcockle	Prostrate knotweed	Wild radish*
Cress (mouse-ear)	Prostrate pigweed	
	Redmaids	

## WEEDS PARTIALLY CONTROLLED\*\*

HARMONY® EXTRA partially controls the following weeds when used according to label directions:

Canada thistle*	Cutleaf eveningprimrose	Nightshade (cutleaf, hairy)
Carolina geranium	Mallow (common, little)	Vetch* (common, hairy)
Catchweed bedstraw		

\* See SPECIFIC WEED PROBLEMS for more information.

\*\*Partial control: A visual reduction of weed population as well as a significant loss of vigor. For better results, use the highest recommended rate of HARMONY® EXTRA per acre and include a tank mix partner such as 2,4-D, MCPA, "Buctril" or "Banvel"/"Banvel" SGF/"Clarity" (refer to TANK MIXTURES).

## SPECIFIC WEED PROBLEMS

**Canada thistle:** For control in wheat and barley, use 0.6 oz per acre plus surfactant when all thistles are 4" to 8" with 2" to 6" of new growth. Make the application in the spring. Control will be improved by using HARMONY® EXTRA in combination with 2,4-D (refer to TANK MIXTURES).

For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D (refer to TANK MIXTURES).

**Common cocklebur, Common ragweed, Lanceleaf sage:** In wheat and barley, apply HARMONY® EXTRA at 0.4 to 0.5 ounce per acre in combination with 2, 4-D at rates from 1/4 to 3/8 lb active ingredient (ester formulations work best) when weeds are small and actively growing. When using 1/4 lb active ingredient of 2, 4-D, be sure to add surfactant at the rate of 1/4 to 1/2 quart per 100 gallons of spray solution (0.06 to 0.125% v/v—use the higher rate under stress conditions).

For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D. Refer to the Tank Mixtures sections of this label for additional details.

**Corn gromwell, Wild buckwheat:** For control in wheat and barley, use 0.5 to 0.6 ounce HARMONY® EXTRA per acre plus surfactant. For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D, MCPA or "Buctril" (refer to TANK MIXTURES).

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use HARMONY® EXTRA in a tank mix with dicamba (such as "Banvel"/ "Banvel" SGF/"Clarity") and 2, 4-D; or Bromoxynil (such as "Buctril") and 2,4-D (3/4 - 1 pt "Buctril" + 1/4 - 3/8 lb active ingredient 2, 4-D ester). HARMONY® EXTRA should be applied in the spring when weeds are less than 2" tall or 2" across and are actively growing. Refer to the Tank Mixtures section of this label for additional details.

**Vetch (common and hairy):** For control in wheat and barley, use 0.5 to 0.6 oz of HARMONY® EXTRA per acre plus surfactant when vetch is less than 6" in length. For severe infestations of vetch, or when vetch is greater than 6" in length, use HARMONY® EXTRA in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label).

For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D or MCPA (refer to TANK MIXTURES).

**Wild garlic:** For control in wheat and barley, use 0.5 to 0.6 oz HARMONY® EXTRA per acre plus surfactant when wild garlic plants are less than 12" tall with 2" to 4" of new growth. For severe infestations, use the 0.6 ounce per acre rate of HARMONY® EXTRA. Plants hardened-off by cold weather and/or drought stress may be more difficult to control. Thorough spray coverage of all garlic plants is essential. Typical symptoms of dying garlic plants may not be noticeable for 2 to 5 weeks.

For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D or MCPA (refer to TANK MIXTURES).

**Wild radish:** For best results in wheat and barley, apply 0.4 to 0.6 ounce HARMONY® EXTRA per acre plus surfactant either in the fall or spring to wild radish rosettes less than 6 inches in diameter. Applications made later than 30 days after weed emergence will result in partial control. For increased control of severe wild radish infestations, or wild radish emerged greater than 30 days, apply HARMONY® EXTRA at 0.3 ounce per acre in combination with MCPA at 1/4 lb active ingredient per acre. Surfactant is required when tank mixing with MCPA, add 1 quart per 100 gallons of spray solution (0.25% vol/vol). Fall applications should be made prior to hardening off of plants.

For control in oat, use 0.4 ounce HARMONY® EXTRA per acre plus 2,4-D or MCPA (refer to TANK MIXTURES).

## **SURFACTANTS**

Unless otherwise specified, add a FMC recommended nonionic surfactant having at least 80% active ingredient at 1 to 2 qt per 100 gal of spray solution (0.25 to 0.5% v/v - refer to TANK MIXTURES for specific adjuvant recommendations when HARMONY® EXTRA is used in a tank mix).

Consult your agricultural dealer, applicator, or FMC representative for a listing of recommended surfactants. Antifoaming agents may be used if needed.

Do not use low rates of liquid nitrogen fertilizer solution as a substitute for surfactant .

## **GROUND APPLICATION**

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop "RA" nozzles are not recommended for HARMONY® EXTRA applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

**Chemigation** - Refer to specific supplemental labeling for use directions for HARMONY® EXTRA herbicide in chemigation systems. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

## **AERIAL APPLICATION**

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 2 to 5 GPA. Use at least 3 GPA in Idaho, Oregon, or Utah.

Do not apply HARMONY® EXTRA by air in the state of New York. See the **Spray Drift Management** section of this label.

## **PRODUCT MEASUREMENT**

HARMONY® EXTRA is measured using the HARMONY® EXTRA volumetric measuring cylinder. The degree of accuracy of this cylinder varies by ± 7.5%. For more precise measurement, use scales calibrated in ounces.

## **TANK MIXTURES**

HARMONY® EXTRA may be tank mixed with other suitable registered herbicides to control weeds listed as suppressed, weeds resistant to HARMONY® EXTRA or weeds not listed under Weeds Controlled. Read and follow all manufacturer's label recommendations for the companion herbicide. If those recommendations conflict with this label, do not tank mix the herbicide with HARMONY® EXTRA.

HARMONY® EXTRA can also be mixed with registered fungicides, insecticides, or liquid fertilizer for use on wheat, barley, oat, or fallow.

### ***With 2,4-D (amine or ester) or MCPA (amine or ester)***

HARMONY® EXTRA may be tank mixed with the amine and ester formulations 2,4-D and MCPA herbicides for use on wheat, barley, and oat.

For best results in the Red River Valley and adjacent areas of North Dakota and Minnesota, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 3/8 lb active ingredient (such as 3/4 pt of a 4 lb/gal product, 1/2 pt of a 6 lb/gal product). No additional surfactant is needed with this mixture.

For best results in other areas, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 1/4 to 3/8 lb active ingredient (such as 1/2 - 3/4 pt of a 4 lb/gal product, 1/3 - 1/2 pt of a 6 lb/gal product). Surfactant may be added to the mixture at 1/2 to 1 qt per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury, especially at the higher phenoxy rates.

Higher rates of 2,4-D or MCPA may be used, but do not exceed the highest rate allowed by those respective labels. Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using these tank mixtures.

### ***With dicamba (such as "Banvel"/"Banvel" SGF/"Clarity")***

HARMONY® EXTRA may be tank mixed with 1/16 to 1/8 lb active ingredient dicamba (such as 2-4 fluid oz "Banvel", 4-8 fluid oz "Banvel" SGF, 2-4 fluid oz "Clarity"). Use higher rates when weed infestation is heavy. Surfactant may be added to the mixture at 1/2 to 1 qt per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury. Refer to the specific dicamba label for application timing and restrictions. Tank mixes of HARMONY® EXTRA plus dicamba may result in reduced control of some broadleaf weeds.

***With 2,4-D (amine or ester) and “Banvel”/“Clarity”***

HARMONY® EXTRA may be applied in a 3-way tank mix with formulations of dicamba and 2,4-D. Make application of HARMONY® EXTRA + 1/16 to 1/8 lb active ingredient dicamba (such as 2 - 4 fluid oz “Banvel”, 4 - 8 fluid oz “Banvel” SGF, 2 - 4 fluid oz “Clarity”) + 1/4 - 3/8 lb active ingredient 2,4-D Ester or Amine per acre. Use higher rates when weed infestation is heavy. Surfactant may be added to the mixture at 1/2 to 1 qt per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury. Consult the specific 2,4-D label, dicamba label, or local recommendations for more information and restrictions.

Apply this 3-way combination to winter wheat and winter oat after the crop is tillering and prior to jointing (first node). In Spring Wheat (including Durum) and Spring Oat, apply after the crop is tillering and before it exceeds the 5-leaf stage.

In Spring Barley, apply after the crop is tillering and before it exceeds the 4-leaf stage.

***With bromoxynil (such as “Buctril”, “Bronate”)***

HARMONY® EXTRA may be tank mixed with bromoxynil containing herbicides registered for use on wheat, barley, or fallow. For best results, add bromoxynil containing herbicides to the tank at 3/16 to 3/8 lb active ingredient per acre (such as “Bronate” or “Buctril” at 3/4 - 1 1/2 pt per acre).

Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using these tank mixtures. Follow the most restrictive labeling. Tank mixes of HARMONY® EXTRA plus “Buctril” may result in reduced control of Canada thistle.

***With EXPRESS® or EXPRESS® XP Herbicide***

HARMONY® EXTRA may be tank mixed with EXPRESS® or EXPRESS® XP based on local recommendations. Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using this tank mixture.

***With ALLY® or ALLY® XP Herbicide***

HARMONY® EXTRA may be tank mixed with ALLY® or ALLY® XP based on local recommendations. Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using this tank mixture.

***With Other Herbicides***

Tank mixes of HARMONY® EXTRA plus metribuzin may result in reduced control of wild garlic.

***With “Hoelon” Herbicide***

HARMONY® EXTRA may be used in combination with “Hoelon” 3EC and “Buctril” herbicides in accordance with the “Hoelon” 3EC label. For best results, use the three-way tank mix of HARMONY® EXTRA at 0.4 oz per acre plus “Hoelon” 3EC at 2 2/3 pt per acre plus “Buctril” at 1 1/2 pt per acre. Apply only to winter wheat. This tank mix should only be used under good soil conditions when wild oat is in the 1-4 leaf stage. If conditions are not ideal for the performance of “Hoelon” 3EC, wild oat control may be reduced. Be sure to follow all warnings and cautions on the “Hoelon” 3EC and “Buctril” labels.

***With “Assert” Herbicide or “Avenge” Herbicide***

HARMONY® EXTRA can be tank mixed with “Avenge” or “Assert”. When tank mixing HARMONY® EXTRA with “Assert”, always include another broadleaf weed herbicide with a different mode of action (for example: 2,4-D ester, MCPA ester, “Buctril,” or “Bronate”).

Tank- mixed applications of HARMONY® EXTRA plus “Assert” may cause temporary crop discoloration, stunting, or injury when heavy rainfall occurs shortly after application.

***With other grass control products***

Tank mixtures of HARMONY® EXTRA and grass control products may result in poor grass control. FMC recommends that you first consult your state experiment station, university, or extension agent, Agricultural dealer, or FMC representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of HARMONY® EXTRA and the grass product to a small area.

***With Insecticides***

HARMONY® EXTRA may be tank mixed or used sequentially with insecticides (or fungicides) registered for use on cereal grains. However, under certain conditions (drought stress, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of HARMONY® EXTRA with organophosphate insecticides (such as parathion) may produce temporary crop yellowing or, in severe cases, crop injury. Test these mixtures in a small area before treating large areas.

**Do not use HARMONY® EXTRA plus Malathion**, as crop injury will result.

***With Liquid Nitrogen Solution Fertilizer***

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing HARMONY® EXTRA in fertilizer solution. HARMONY® EXTRA must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the HARMONY® EXTRA is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/4 qt - 1 qt per 100 gal of spray solution ( 0.06 -0.25% v/v) based on local recommendations.

When using high rates of liquid nitrogen fertilizer solution in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or FMC representative for a specific recommendation before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with HARMONY® EXTRA and fertilizer mixture, ester formulations tend to be more compatible (See manufacturer’s label). Additional surfactant is not needed when using HARMONY® EXTRA in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions.

Do not use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

## **TANK MIXTURES IN FALLOW**

HARMONY® EXTRA may be used as a fallow treatment, and should be tank mixed with other herbicides that are registered for use in fallow.

Read and follow all manufacturer's label recommendations for the companion herbicide. If those recommendations conflict with this label, do not tank mix the herbicide with HARMONY® EXTRA.

## **TANK MIXTURES IN PRE-PLANT BURNDOWN**

HARMONY® EXTRA may be used as a pre-plant burndown treatment alone or tank mixed with other herbicides that are registered for use as a pre-plant burndown product, such as "Landmaster" II, "Fallow Master", "Roundup" plus "Banvel" / "Banvel" SGF/ "Clarity", or "Banvel"/ "Banvel" SGF/ "Clarity" alone.

Read and follow all manufacturer's label recommendations for the companion herbicide. If those recommendations conflict with this label, follow the most restrictive labeling (such as planting interval after application), or do not tank mix the herbicide with HARMONY® EXTRA.

## **MIXING INSTRUCTIONS**

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of HARMONY® EXTRA
3. Continue agitation until the HARMONY® EXTRA is fully dispersed, at least 5 minutes.
4. Once the HARMONY® EXTRA is fully dispersed, maintain agitation and continue filling tank with water. HARMONY® EXTRA should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the required volume of nonionic surfactant. Always add surfactant last. Do not use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0, as rapid product degradation can occur. Spray solutions of pH 6.0-8.0 allow for optimum stability of HARMONY® EXTRA.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply HARMONY® EXTRA spray mixture within 24 hours of mixing to avoid product degradation.
8. If HARMONY® EXTRA and a tank mix partner are to be applied in multiple loads, pre-slurry the HARMONY® EXTRA in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the HARMONY® EXTRA.

## **GRAZING**

Do not graze livestock in treated areas. In addition, do not feed forage or hay from treated areas to livestock (harvested straw may be used for bedding and/or feed).

## **SPRAY EQUIPMENT**

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to Spray Drift Management section of label.

Continuous agitation is required to keep HARMONY® EXTRA in suspension.

## **SPRAYER CLEANUP**

The spray equipment must be cleaned before HARMONY® EXTRA is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in After Spraying HARMONY® EXTRA.

## **AT THE END OF THE DAY**

It is recommended that during periods when multiple loads of HARMONY® EXTRA herbicide are applied, at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

## **AFTER SPRAYING HARMONY® EXTRA AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY AND OAT**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of HARMONY® EXTRA as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal of household ammonia\* (contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

\* Equivalent amounts of an alternate-strength ammonia solution or a FMC-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or FMC representative for a listing of approved cleaners.

**Notes:**

1. **CAUTION:** Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When HARMONY® EXTRA is tank mixed with other pesticides, all cleanout procedures should be examined and the most rigorous procedure should be followed.
4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of HARMONY® EXTRA and applications of other pesticides to HARMONY® EXTRA-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to HARMONY® EXTRA to further reduce the chance of crop injury.

**SPRAY DRIFT MANAGEMENT**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

**IMPORTANCE OF DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

**Controlling Droplet Size - General Techniques**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

**Controlling Droplet Size - Aircraft**

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as a disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

**BOOM HEIGHT**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

**WIND**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY AND WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## **AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS**

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the spray equipment section of this label to determine if use of an air assist sprayer is recommended.

## **RESISTANCE**

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected.

If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

Naturally occurring weed biotypes that are resistant to ALLY® herbicide, EXPRESS® herbicide, FINESSE® herbicide or GLEAN® FC herbicide will also be resistant to HARMONY® EXTRA.

## **INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## **PRECAUTIONS**

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.
- Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley or oat.

HARMONY® EXTRA is only registered on wheat, barley, oat and fallow. Do not use on any other crop.

The total rate of HARMONY® EXTRA for wheat (including durum) and barley cannot exceed 1.0 ounce product per acre applied to any one crop during one growing season.

The total rate of HARMONY® EXTRA for oat (spring and winter) cannot exceed 0.4 ounces product per acre applied to any one crop during one growing season.

Varieties of wheat (including durum) and barley may differ in their response to various herbicides. FMC recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use to a small area.

Under certain conditions such as heavy rainfall, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after HARMONY® EXTRA application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix HARMONY® EXTRA with 2,4-D (ester formulations perform best—see Tank Mixtures) and apply after the crop is in the tillering stage of growth.

HARMONY® EXTRA should not be applied to wheat, barley or oat that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

Do not apply to wheat, barley or oat crops underseeded with another crop.

Dry, dusty field conditions may result in reduced control in wheel track areas.

Do not harvest sooner than 45 days after the last application of HARMONY® EXTRA.

## PESTICIDE STORAGE AND DISPOSAL

**Pesticide Storage:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

**Product Disposal:** Do not contaminate water, food, or feed by disposal. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** **For Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. **For Fiber Sacks:** Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities. **For Fiber Drums With Liners:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. **For Bags Containing Water Soluble Packets:** Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above. **For Metal Containers (non aerosol):** Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. **For Paper and Plastic Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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Updated Company references  
by separating FMC and DuPont  
brand names

Revised the version date and label code

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The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

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Replaced the DuPont "Limitation of Warranty and Liability" statements with FMC's "Conditions of Sale and Limitation of Warranty and Liability" statements

Replaced DuPont signature band with the FMC signature band

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